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SYSTEM DEVELOPMENT AND DEMONSTRATION PHASE  
(SPIRAL 1) SUPPLEMENT  
BETWEEN THE SECRETARY OF DEFENSE ON BEHALF OF THE  
DEPARTMENT OF DEFENSE  
OF THE UNITED STATES OF AMERICA  
AND THE  
SECRETARY OF STATE FOR DEFENCE  
OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND  
UNDER THE MEMORANDUM OF UNDERSTANDING.  
CONCERNING THE COMMON MISSILE PROGRAM  
(Short Title: CM SDD Spiral 1 Supplement)

Jan 9, 2004

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## SECTION I

### INTRODUCTION

The Secretary of Defense on behalf of the Department of Defense of the United States of America and the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland, hereinafter referred to as the "Participants":

Recognizing that this Supplement is subject to the Memorandum of Understanding (MOU) between the Secretary of Defense on behalf of the Department of Defense of the United States of America and the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland, dated 7 December 2001, concerning the Common Missile Program and any amendments thereto "the MOU";

Whilst recognizing that the program name has changed from Common Missile to Joint Common Missile (JCM), and in order to maintain continuity with the MOU, this supplement will refer to the JCM as "Common Missile".

Desiring to improve their mutual conventional defense capabilities through joint system development.

Have reached the following understandings:

## SECTION II

### DEFINITIONS

The Participants have jointly decided upon the following definition for the term used in this Supplement.

**SMART:** *Simulation and Modeling, Acquisition Requirements Training* - A process in which modeling and simulation technology is used to address the issue of system development and life-cycle costs through the combined efforts of the requirements, training and acquisition communities.

## SECTION III

### OBJECTIVES

3.1 The Objectives of the System Development and Demonstration (SDD) phase are:

- 3.1.1 To design, develop and flight-test an anti-armor/anti-material missile system that meets the harmonized operational requirements of the Participants.
- 3.1.2 To develop missile interfaces for the air and ground platforms that will enable the integration of the Common Missile on designated platforms.
- 3.1.3 To utilize the best technology available to both Participants in the development of the Common Missile System.

3.2 This Supplement is for the Common Missile SDD phase only.

- 3.2.1 The SDD phase will begin at the beginning of Fiscal Year (FY) 2004 with the selection of one or more Contractor teams to conduct development activities based on their technical approach.
- 3.2.2 The basic cooperative SDD program activities will take place in FY 2004 through FY 2006 to develop a modular missile with a multi-mode seeker.
- 3.2.3 Hardware-in-the-Loop demonstrations will be conducted to validate the Contractor's technical approach and operational readiness of the various subsystems.
- 3.2.4 SMART procedures will be implemented to reduce technical risk and program cost.
- 3.2.5 Flight tests shall be conducted during the SDD phase to demonstrate the technical approaches and assist in the production decision process.

## SECTION IV

### SCOPE OF WORK

4.1 The tasks to be conducted by the Project Manager during the System Development and Demonstration (SDD) phase will include, but not be limited to the following:

- 4.1.1 Identifying the Functional, Allocated and Product Baseline, as appropriate.
- 4.1.2 Conducting the following design reviews and audits: Program Reviews; Environmental, Safety and Health Reviews; Software Specification Review (SSR); Preliminary Design Review (PDR); Design Readiness Review (DRR); Critical Design Review (CDR); Test Readiness Review (TRR); Functional Configuration Audit (FCA); Physical Configuration Audit (PCA); and Production Readiness Reviews (PRRs).
- 4.1.3 Development and refinement of a Capability Development Document (CDD), Capability Production Development (CPD), System/Subsystem Specification (SSS), and Software Requirements Specification (SRS). Establish the software architecture. Selection and tailoring of the appropriate software development standards. Identification of the Software Items (SIs). Transition of the Software Configuration Management to the U.S. Government.
- 4.1.4 Conducting developmental and limited user operational live fire testing, Insensitive Munitions (IM) testing, lethality testing, production acceptance and production qualification testing, survivability testing.
- 4.1.5 Assessment and resolution of development and production risk. Complete manufacturing technology development. Establish design to cost goals. Evaluate production feasibility. Conduct the Industrial Capability Assessment (ICA). Continue the implementation of the Value Engineering (VE) program.
- 4.1.6 Development of the Common Missile Support Planned conduct of the supporting analysis. Develop the system Deployment/Fielding Plan. Plan for Post Production support.
- 4.1.7 Development of the Request for Proposal (RFP), Statement of Work (SOW), Specifications, and Contract Data Requirements List (CDRL) for the Production and Deployment phase contract(s).
- 4.1.8 Identification of the initial Pre-Planned Product Improvements (P3I) to be incorporated into production.

## SECTION V

### FINANCIAL PROVISIONS

5.1 The Participants estimate that the performance of the SDD phase under this Supplement will not cost more than the Cost Ceiling of \$ 627.96M in U.S. Constant Year 2003 dollars. The Cost Ceiling may be changed only upon the written consent of the Participants. The United States will contribute \$614.1M and the United Kingdom will contribute \$13.86M.

5.2 The full Financial Costs and Non-Financial Costs of the SDD phase are identified herein. Non-financial contributions for PMO administration and associated support services (e.g., Contract award, Contract administration, office space, security services, etc.) have also been mutually agreed.

5.3 Each Participant will fund the Project in accordance with the financial schedule contained in an SDD Financial Management Procedures Document that is based on the estimated funding profile below. The SDD FMPD will be developed and approved by the SC in accordance with Section V (Management) and Section VI (Financial Contributions) of the Memorandum of Understanding (MOU) between the Secretary of Defense on behalf of the Department of Defense of the United States of America and the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland, dated 7 December 2001, concerning the Common Missile Program.

5.4 A Participant will notify the other Participant if available funds are not adequate to fulfill its responsibilities under this Supplement. Under these circumstances, both Participants will immediately consult with the view toward continuation on a modified basis.

SDD Phase Estimated Funding Profile  
(Millions of Constant Year 2003 U.S. Dollars)

	FY04	FY05	FY 06	Total
United States				
Financial	108.6	236.7	265.8	611.1
Non-Financial	1.0	1.0	1.0	3.0
<b>Total U.S.</b>	<b>109.6</b>	<b>237.7</b>	<b>266.8</b>	<b>614.1</b>
United Kingdom				
Financial	4.62	4.62	4.62	13.86
Non-Financial				
<b>Total UK</b>	<b>4.62</b>	<b>4.62</b>	<b>4.62</b>	<b>13.86</b>
<b>Total Financial/Non-Financial Funding</b>	<b>114.22</b>	<b>242.32</b>	<b>271.42</b>	<b>627.96</b>
<b>Cost Ceiling</b>				<b>627.96</b>



## SECTION VI

### DISCLOSURE AND USE OF PROJECT INFORMATION

6.1 To ensure equitability of this SDD phase, the U.S. will limit the disclosure of Project Information to the following:

6.1.1 Documents:

- 6.1.1.1 Initial Capabilities Document (ICD)
- 6.1.1.2 Capability Development Document (CDD) and Capability Production Document (CPD) and revisions thereto (with approval of Joint Staff)
- 6.1.1.3 Test and Evaluation Master Plan (TEMP) and revisions thereto
- 6.1.1.4 Program Schedules and revisions thereto
- 6.1.1.5 Integrated Logistics Support Plans (ILSP) and revisions thereto
- 6.1.1.6 The Cost Analysis Improvement Group (CAIG) Report
- 6.1.1.7 The platform Interface Control Document
- 6.1.1.8 Acquisition Strategy and revisions thereto

6.1.2 Sub-system and system test results

6.1.3 Other Data:

- 6.1.3.1 SMART results and revisions thereto
- 6.1.3.2 System Development Plan to achieve Objective Capability
- 6.1.3.3 Average Unit Production Cost (AUPC) and Life Cycle Cost (LCC) estimates and revisions thereto
- 6.1.3.4 Safety of Flight and Platform Separation certification

6.1.4 Attendance at Meetings:

- 6.1.4.1 PDR, CDR, FCA/PCA, and Program Reviews

- 6.1.5. Use by the UK, of the Project Information defined above in paragraph 6.1, will be limited to SDD phase Project Purposes only until the UK participates in future project phases under a new Agreement.

6.2 Patents.

- 6.2.1 The last sentence of paragraph 10.8.1 of the MOU is replaced by the following:

"If a Participant having filed or caused to be filed a Patent application decides to stop prosecution of the application, or where a Patent has been granted decides not to maintain any such Patent in force, that Participant will notify the other Participant of that decision and permit the other Participant to continue the prosecution or take such actions as are needed to maintain the Patent in force."

- 6.2.2 Paragraph 10.8.3 of the MOU is replaced by the following:

"The other Participant will be granted a non-exclusive, irrevocable, royalty-free license to practice or have practiced, by or on behalf of the Participant, throughout the world for Defense Purposes, any Patents for Project Inventions."

- 6.2.3 Paragraph 10.8.7 of the MOU is replaced by the following:

"In the event that a Contractor holds the title (or elects to retain title) for a Project Invention, the contracting Participant will secure for both Participants non-exclusive, irrevocable, royalty-free licenses under all Patents secured for the inventions, to practice or have practiced the Patents for Project Invention for Defense Purposes throughout the world."

## SECTION VII

### AMENDMENT, ENTRY INTO FORCE, DURATION AND TERMINATION

7.1 All activities of the Participants under this Supplement will be carried out in accordance with their national laws and the responsibilities of the Participants will be subject to the availability of funds appropriated to implement this Supplement.

7.2 In the event of a conflict between a Section of this Supplement and the MOU, the Supplement Section will take precedence.

7.3 This Supplement, which consists of seven Sections, will enter into effect upon signature by both Participants and will remain in effect for four years. It may be extended by the mutual written consent of the Participants.

7.4 Except as otherwise provided, this Supplement may be amended by the mutual written consent of the Participants.

7.5 This Supplement may be terminated at any time upon the mutual written consent of the Participants. In the event both Participants consent to terminate this Supplement, the Participants will consult prior to the date of termination to ensure termination on the most economical and equitable basis.

7.6. Either Participant may terminate this Supplement upon 180 days written notification to the other Participant. Such notice will be the subject of immediate consultation between the PEO and its UK counterpart to decide upon the appropriate course of action. In the event of such termination, the following rules apply:

- 7.6.1 The terminating Participant will continue participation, financial or otherwise, up to the effective date of termination.
- 7.6.2 Except as to Contracts awarded on behalf of both Participants, each Participant will be responsible for its own Project-related costs associated with termination of the Project. For Contracts awarded on behalf of both Participants, the terminating Participant will pay all Contract modification or termination costs that would not otherwise have been incurred but for the decision to terminate; in no event, however, will a terminating Participant's total financial contribution, including Contract termination costs, exceed that Participant's Total Cost Ceiling for financial contributions as established in Section V (Financial Provisions).
- 7.6.3 The Participants, subject to the provisions of the MOU, will retain all Project Information and rights therein received under the provisions of the MOU prior to the termination. No warranty is implied with regard to sufficiency or adequacy of the Project Information provided prior to termination.

7.7 The respective rights and responsibilities of the Participants regarding Section VI (Disclosure and Use of Project Information), contained in this supplement will continue notwithstanding termination or expiration of the MOU or this Supplement.

The foregoing represents the understandings reached between the Secretary of Defense on behalf of the Department of Defense of the United States of America and the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland upon the matters referred to therein. Signed in duplicate in English by authorized representatives.

FOR THE SECRETARY OF DEFENSE ON  
BEHALF OF THE DEPARTMENT OF  
DEFENSE OF THE UNITED STATES OF  
AMERICA:

Signature

Mr. Craig D. Hunter

Name

Deputy Assistant Secretary of the Army  
for Defense Exports & Cooperation

Title

January 16, 2004

Date

Washington D.C.

Location

FOR THE SECRETARY OF STATE FOR  
DEFENCE OF THE UNITED KINGDOM  
OF GREAT BRITAIN AND NORTHERN  
IRELAND:

Signature

Name

Title

Date

Location

S. J. Porter

S. J. PORTER

Executive Director, JPA

3 February 2004

Abbey Wood, Bristol